

REMARKS

Reconsideration of this application in light of the above amendments is courteously solicited.

In rejecting the previously filed claims, the Examiner has applied U.S. Patent 5,877,391 under 35 U.S.C. 102 and under 35 U.S.C. 103 in combination with U.S. Patent 6,037,289. Alternatively, the Examiner applied the '289 patent in view of the '391 patent under 35 U.S.C. 103. As to how these rejections applied to the claims as amended herein, they are respectively traversed.

Kanno teaches a catalyst for which silica and tungsten provide a porous layer on titania (col. 2, lines 39-47) in order to prevent titania from forming a compound with fluorine (col. 2, lines 57-65).

As a result, Kanno teaches the use of high levels of tungsten to achieve a porous layer covering the titania surface, from 5 mol % W, based on Ti and W, as noted in claim 1. Since tungsten has a high atomic weight, even the extreme lower end of the claimed range corresponds to a high weight percent of tungsten oxide on the surface. The 5% mol W lower claimed range of Kanno is equal to 25.5% weight tungsten oxide on Ti.

Further, Kanno teaches use of 0.5 to 15% weight silica, to provide a porous layer on titania to prevent attack on the titania by fluorine.

The present application does not seek to provide a porous layer of silica and tungsten on titania, but rather uses catalytic amounts required in the reaction. Indeed, in one embodiment, the silica is the primary constituent, and titania may be dispersed within the silica, consistent with claimed silica content of up to 70% weight.

The present application does not seek a porous layer of tungsten covering the titania, as is claimed by Kanno. Instead, catalytic levels of tungsten are claimed in the present application. Therefore, the claimed range of the present application of 10 to 50% weight tungsten oxide will be reduced to 10 to 25% weight tungsten oxide on Ti. As a result, the Kanno art does not read on the claimed range. Indeed, since the intended function is catalytic instead of the Kanno protective porous layer, it is not surprising that Kanno did not anticipate the claimed range of the present application.

The Chopin et al., U.S. Patent 6,037,289 teaches a catalyst which is formed of one of the following:

- (1) silicon and titanium,
- (2) tungsten and titanium dioxide, and

kanno teaches
silica & W coated
on Titania particles

(3) platinum and titanium dioxide.

In the Examiner's first rejection the Chopin reference is cited as a secondary reference under 35 U.S.C. 103. It is respectfully submitted that the combination of the teachings of Chopin into the primary reference would not lead to the claimed subject matter. Specifically, the three catalysts disclosed by Chopin would not lead one skilled in the art to add platinum to the Kanno catalyst. To the contrary, the teachings of Chopin would lead one skilled in the art not to mix the combination of compounds claimed in amended independent claim 27. As the Chopin reference specifically teaches mutually exclusive alternatives. Accordingly, it is submitted that the Examiner's combining of Chopin with Kanno represents nothing more than a hindsight reconstruction. In this regard it should also be noted that Chopin does not teach the proper proportions with which to mix silica, titania, tungsten oxide and platinum to achieve an effective catalyst of a composition claimed in independent claim 27.

The Examiner's alternative rejection under 35 U.S.C. is Chopin in view of Kanno. Again this rejection must fail under 35 U.S.C. 103 as nothing more than a hindsight reconstruction. The Kanno reference teaches that silicon, silica and tungsten are present to form a porous protective

layer over titania (See column 2 lines 35-47). Kanno does not teach that the silica and tungsten provide a catalytic effect (as would platinum as proposed by Chopin) hence, the teachings of Kanno would not lead one to combine with Chopin as there would be no reason to provide the protective layer as taught by Kanno indeed, one skilled in the art would expect that the protective layer of Kanno would not result in a catalytic catalyst of the type desired by Chopin. Accordingly, the rejection of amended claim 27 under 35 U.S.C. 103 based on Chopin in view of Kanno likewise fails.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case,
it is respectfully requested that they be charged to
Deposit Account No. 02-0184.

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on April 25, 2002
(Date of Deposit)

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[Signature]
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Respectfully submitted,

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Version with markings to show changes made to the claim

27. (Amended) A catalyst for converting contaminants in a gas stream comprises from about 0.1 wt.% to about 70 wt.% silica, from about 30 wt.% to about 90 wt.% titania, [and] from about 10 wt.% to about 50 wt.% tungsten oxide and an element selected from the group consisting of platinum, palladium and mixtures thereof in an amount of between about 0.01 wt.% to about 5.0 wt.%.